Author Index to Volume 18

Acharya, H. N., 481—July
Ackley, D., 603—September
Adachi, Kohei, 319—March
Aina, Olaleye A., 131—March
Allovon, M., 505—July
Appelbaum, A., 69—January
Ashbee, K. H. G., 275—March
Averback, R. S., 39—January
Ayres, J. R., 173—March

Balde, J. W., 221—March
Balland, B., 85—January
Banjo, Toshinobu, 633—September
Bao, X. J., 123—March
Barns, R. L., 549—July
Barns, R. L., 703—November
Benton, Janet L., 171, 199—March
Berger, P. R., 137—March
Bhattacharya, P. K., 137—March
Bhattacharya, P. K., 379—May
Biefeld, R. M., 465—May
Biefeld, R. M., 775—November
Biswas, D., 137—March
Blaauw, C., 567—September
Block, T. R., 585—September
Bobbio, Stephen M., 293—March
Bottka, N., 501—July
Brady, F. T., 385—May
Brebrick, Robert F., 421—May
Bremond, G., 391—May
Bridenbaugh, P. M., 549—July
Bridges, T. J., 717—November
Brillson, L. J., 59—January
Brotherton, S. D., 173—March
Brown, H., 549—July
Bruce, R. A., 567—September
Bryan, R. P., 39—January
Buchan, N. I., 457—May
Bucher, E., 105—March
Burton, L. C., 527—July

Cahen, David, 531—July
Calderon, L., 369—May
Campbell, A. C., 585—September
Campbell, A. N., 517—July
Carver, G. P., 53—January
Caunt, J. W., 645—September
Chan, K. T., 355—May
Chen, J. F., 399—May
Choi, H. K., 695—November
Clegg, J. B., 173—March
Cole, E. D., 527—July
Coleman, J. J., 39—January
Colvard, C., 603—September
Condit, D. A., 593—September
Conner, W. C., 45—January
Conner, W. C., 369—May
Connors, M. K., 695—November
Cooper III, C. B., 619—September
Cowher, M. E., 593—September
Croke, E. T., 757—November
Crook, G. E., 585—September
Crowley, J., 731—November
Culbertson, Robert J., 689—November

Dabral, S., 53—January
Dabral, S., 301—March
Darveaux, Robert, 267—March
Das, V., 137—March
Dass, L., 731—November
Davidson, J. L., 711—November
Davis, R. F., 157—March
Dawson, L. R., 465—May
DeVries, Peter D., 543—July
DeVries, Peter D., 763—November
DeWald, A. B., 737—November
Dishon, Giora J., 293—March
Dodabalapur, Ananth, 65—Januar
Draper, B. L., 517—July
Dudley, S. C., 191—March
Dumin, D. J., 53—January
Dunn, J., 445—May

Eckart, D. W., 369—May
Ellis, C., 711—November
Emmerstorfer, B., 567—September
Eng, David C., 689—November
Erbil, A., 453—May
Euen, W., 561—July

Fair, Richard B., 143—March
Fang, Z. Q., 123—March
Fatemi, Navid S., 7—January
Fathimulla, Ayub, 131—March
Feng, Z. C., 453—May
Fornari, R., 151, 185—March
Fraser, D. B., 731—November
Frear, D., 671—November
Frear, D. R., 517—July
Freytag, M., 53—January
Frigeri, C., 185—March
Fritz, I. J., 465—May
Fritz, I. J., 775—November
Frost, M. R., 731—November
Frost, R. L., 737—November
Fukushima, Jiro, 633—September

Gao, Y., 505—July
Gaskill, D. K., 501—July
Gavand, M., 391—May
Gerstung, C. H., 593—September
Gibart, P., 207—March
Givens, M. E., 39—January
Glass, J. T., 157—March
Gleichmann, R., 185—March
Gofuku, Eishi, 651—September
Gombia, E., 151—March
Gorman, R., 407—May
Gowers, J. P., 173—March
Graham, R. J., 99—March
Grivas, D., 671—November
Groves, S. H., 645—September
Guillot, G., 391—May
Gulwadi, Sadanand M., 131—March

Hagmann, D., 561—July
Harris, I. R., 511—July
Hata, Tsutomu, 633—September
Hauenstein, R. J., 757—November
Hava, S., 589—September
Hayes, T. M., 207—March
Hellman, Olof C., 689—November
Henscheid, D., 99—March
Herbots, Nicole, 689—November
Hewitt, L. R., 721—November
Hizem, N., 391—May
Ho, V. Q., 493—July
Ho, Yueh-Se, 293—March
Horng, S. F., 33—January
Hovey, D. L., 645—September
Howard, A. J., 567—September
Hu, S. J., 117—March
Hu, S. J., 599, 627—September
Huang, Rong-Ting, 603—September
Huelsman, Alan D., 91—January
Hues, S. M., 501—July
Hutcheson, L. D., 259—March
Hwang, Lih-Tyng, 267—March

Jakubowicz, A., 531—July
Jen, H. R., 445—May
Jewett, Russell F., 293—March
Johnson, B. C., 717—November
Johnson, E. S., 411—May
Jones, E. D., 465—May
Jones, K. A., 45—January
Jones, K. A., 369—May

Kahn, A., 33—January
Kasemset, Dumrong, 603—September
Kellert, F. G., 355—May
Kemmerley, R. T., 487—July
Kerk, S. L., 117—March
Kesan, V. P., 585—September
Khan, A. Azim, 543—July
Khan, A. Azim, 763—November
Kibbler, A., 15—January
Kilday, D. G., 33—January
Kim, Choong-Ki, 573—September
Kim, H. J., 157—March
Kim, Jeong-Gyoo, 573—September
Kim, Yudong, 143—March
King, J. M., 487—July
Kisilev, A., 531—July
Klatt, J. L., 39—January
Kozicki, M. N., 99—March
Krull, W. A., 385—May
Kuech, Thomas, F., 579—September
Kurtz, S. R., 775—November
Kurtz, Sarah R., 15—January

Lackner, Thomas, 19—January
Lacquet, B. M., 589—September
LaGraffe, D., 59—January
Lange, F., 251—March
Larsen, C. A., 457—May
Lau, W. M., 123—March
Lawson, E. M., 1—January
Lee, C. P., 623—September
Lee, Chin C., 327—March
Lee, Chung J., 313—March
Lee, K. C., 599, 627—September
Lee, P. J., 1—January
Legg, G. E., 411—May
Lessoff, H., 407—May
Leys, M. R., 25—January
Li, S. H., 457—May
Li, S. S., 385—May
Liao, J., 731—November
Liu, T. H., 623—September
Look, D. C., 191—March
Look, D. C., 487—July

MacMillan, H. F., 619—September
Majid, N., 301—March

Mao, D., 33—January
Marchand, J. J., 85—January
Marcu, V., 531—July
Margaritondo, G., 33—January
Margulis, L., 531—July
Masselink, W. Ted, 579—September
Massoud, Hisham Z., 143—March
Matizasevic, Goran, 327—March
Mazzarese, D., 45—January
Mazzarese, D., 369—May
McDonald, J. F., 301—March
McGill, T. C., 757—November
McGinn, J. T., 721—November
McKinley, J., 33—January
Metzger, G., 561—July
Meyers, P. R., 465—May
Mier, M. G., 191—March
Mier, M. G., 487—July
Mikawa, R. E., 517—July
Milnes, A. G., 123—March
Miner, C. J., 361—May
Miner, C. J., 567—September
Mitchel, W. C., 209—March
Monberg, E. M., 549—July
Monserrat, K. J., 475—July
Morihiro, Yoshiyuki, 651—September
Morris, Jr., J. W., 671—November
Mosca, R., 151—March
Motakef, Shahrnaz, 689—November
Mughal, M., 99—March
Mumby, Stephen J., 241, 287—March
Murali, V., 731—November

Nagle, J. P., 167—March
Nakagawa, Osamu, 633—September
Neikirk, D. P., 585—September
Neugebauer, C. A., 229—March
Nieh, C. W., 757—November
Nouailhat, A., 391—May
Nouri, N., 603—September
Novotny, D., 53—January

Oh, J. E., 137—March
Oh, J. E., 379—May
Ohata, K., 111—March
Okamoto, A., 111—March
Olson, J. M., 15—January
Omeljanovsky, E. M., 659—November
Outzourhit, A., 207—March

Pakhomov, A. V., 659—November
Palmateer, S. C., 645—September
Palyakov, A. Y., 659—November
Pamulapati, J., 379—May
Pang, S. K., 737—November
Paston, S., 553—July
Perkowitz, S., 453—May
Pistol, M.-E., 25—January
Pollard, K. T., 453—May
Poston, S., 79—January
Primot, J., 505—July

Quillic, M., 505—July

Ramesham, R., 711—November
Rao, Mulpuri V., 131—March
Rea, Laura S., 209—March
Reif, R., 91—January
Reisman, A., 79—January
Reisman, A., 215, 267—March
Reisman, A., 553—July
Reisman, A., 745—November
Remaki, B., 85—January
Robertson, P. J., 53—January
Rohatgi, A., 453—May
Rohatgi, A., 737—November
Rudra, A., 207—March
Rymaszewski, E. J., 217—March
Ryu, J., 157—March

Salimian, S., 619—September
Samalam, Vijay K., 611—September
Samuelson, L., 25—January
Sangha, S. P. S., 167—March
Schaffer, J. P., 737—November
Scharer, G., 561—July
Schirber, J. E., 465—May
Schlesinger, T. E., 123—March
Sen, S., 527—July
Sewell, J. S., 191—March
Sewell, J. S., 487—July
Sha, Yi Gao, 421—May
Shan, L., 123—March
Shaw, J. L., 59—January
Sheets, G. W., 99—March
Shiau, Wei-Tsun, 767—November
Shimamoto, Haruo, 633—September
Shimomura, Kou, 633—September
Shumacher, Kimberly L., 681—November
Shuskus, A. J., 593—September
Sillmon, R. S., 501—July
Sizelove, J. S., 487—July
Small, P., 207—March
Smith, M. C., 465—May
SpringThorpe, A. J., 361—May
SpringThorpe, A. J., 567—September
Stiles, K., 33—January
Storz, F. G., 717—November
Streetman, B. G., 65—January
Streetman, B. G., 585—September
Stringfellow, G. B., 445, 457—May
Stücheli, N., 105—March
Sudharsanan, R., 453—May
Suryanarayana, P., 481—July
Swart, P. L., 589—September

Tachikawa, Toru, 633—September
Takada, Mitsuyuki, 319—March
Takada, Mitsuyuki, 651—September
Takasago, Hayato, 319—March
Takasago, Hayato, 651—September
Taroff, L. E., 361—May
Tay, C. Y., 511—July
Tay, S. C., 117—March
Terry, Jr., Fred L., 757—November
Tessier, Ted G., 293—March
Thomas, P. M., 69—January
Thompson, P. E., 501—July
Thompson, Phillip E., 131—March
Titze, H., 25—January
Tober, R. L., 379—May
Tossell, D. A., 275—March
Tothill, J. N., 475—July
Tripathi, A., 45—January
Tripathi, A., 369—May
Turlik, Iwona, 215, 267—March

Ueda, Tetsuya, 633—September
Ulrich, W., 391—May

Vancauwenberghe, Olivier, 689—November
Viturro, R. E., 59—January

Walters, D. C., 191—March
Walters, D. C., 487—July
Wang, C. A., 695—November
Warren, Garry W., 339—March
Warrier, A. V. R., 537—July
Weizer, Victor G., 7—January
West, P. J., 167—March
Whelan, J., 355—May
Whitney, Raymond L., 681—November
Wie, C. R., 399—May
Williamson, D. L., 207—March
Wright, S. J., 511—July
Wu, A. T., 731—November
Wu, C. P., 721—November
Wu, S. C., 623—September
Wynblatt, Paul, 339—March

Yadava, R. D. S., 537—July
Yamamoto, Isamu, 633—September
Yang, G. R., 123—March
Young, K., 33—January
Yu, P. W., 209—March
Yuan, Jih, 287—March

Zamanzadeh, Mehrooz, 339—March
Zhao, J. H., 123—March
Zipperian, T. E., 465—May
Zwiebel, I., 99—March

Subject Index to Volume 18

Acetylacetonates, 79
Acoustic microscope, 327
Activation, 131
Adsorption, 45
AES, 69
AlN, 221
Al-1%Si, 517
AlAs-GaAs superlattice, 39
AlGaAs, 411
AlGaAs/GaAs
  heterojunction, 501
  quantum well, 603
AlInAs, 505
Al/Sb, 689
Anisotropic silicon, 19
Anneal, 123
Annealing, 157
  behavior, 511
Aquadag contacts, 481
Arsenic
  implantation, 561
  silicide, 561

Band structure, 421
Benzocyclobutene, 221
Be implants, 465
Beta-SiC, 157
Bias-temperature instabilities, 767
Blue electroluminescence, 105
Bonding, 327
Boron nitride solid diffusion source, 573
Bulk crystal growth, 549

C-t, 385
C-V, 385
CdMnTe, 453
CdTe, 59
Capacitance, 543
Characterization, 379
Codeposition, 757
Compositional disordering, 39
Compensated *n*-type, 537
Composites, 241
$CuGaSe_2$, 531
Cu/polyimide composites, 319
Correlations, 487

Damage, 143
Deep levels, 59, 85, 151
Defect chemistry, 421
Defects, 123, 173, 537, 659, 731, 737
Dielectric
  applications, 99
  properties, 241
Density, 79
  of metal-organic compounds, 79
DH-HEMT, 603
Diamond, 711
Die
  -attachment, 327
  bond voids, 627
Dielectric, 711
Diethylberyllium, 501
Differential
  mobility, 579
  thermal analysis, 553
Diffusion, 69, 143, 567
Dislocation, 399, 407
  density, 487
DLTS, 1, 123, 391, 527, 543, 763
Doping, 567
Double-barriers, 379
Dual implantation, 65
DX centers, 207

Effects of ambient gas, 573
EL0, 209
EL2, 209, 487
Elastic constants, 19
Electrical properties, 593
Electrochemical migration, 339
Enthalpy of defect creation, 421
Epitaxy, 757
Epoxy resin, 287
Etch pit density, 191
Etched frames, 117
Etching, 407
Eutectic, 327
  wettability, 627

Featured substrates, 411
Film recrystallization, 445
Finite difference thermal analysis, 267

GaAlAs, 207
GaAs, 33, 59, 111, 123, 137, 191, 199, 209, 259, 391, 579, 623, 659, 737
  /AlAs, 585
  /AlGaAs, 695
  MMICs, 167
GaAsP, 91
GaInP, 15
Gallium
  arsenide, 407, 593
  phosphide, 25
GaN, 369
Gas distributor, 603
Glass reinforced composites, 287
Au bond finger, 599

Heat dissipation, 611
HEMT, 603
Heterostructures, 379
Hexafluoroacetylacetonates, 79
High
  density packaging, 229
  performance packages, 319
  -speed PWB, 241
  T_c superconductor interconnections, 251
Hydride vapor phase epitaxy, 717
Hydrogen implantation, 589

Implantation, 131, 721
Impurity calibrations, 681
InAsSb, 775
InGaAs, 69, 131, 475
InGaAs/GaAs, 465
InGaAsP, 69
InP, 65, 69, 199, 355, 445, 549, 567, 645, 659
Infrared transmission, 191
In-situ, 731
Integrated optoelectronics, 259
Interconnections, 229
Interdiffusion, 689
Interface, 59
Intermetallic compound, 69
Internal Reflectance Spectroscopy, 45
Interstitials, 173, 185
Iodine, 481
Ion
  damage, 527
  implantation, 85, 143, 157
Isoelectronic doping, 399

Joint thickness, 671

Large area deposition, 645
Laser, 717
  surface modified, 651
Lasers, 475
PbTe, 421
LEC GaAs, 151, 185
Light emitting diode, 411
Liquid phase epitaxy, 399
Low
  dislocation density, 549
  resistive *p*-type, 105
  temperature, 33
Luminescence, 59

MBE, 505, 757
Melt composition, 151
HgCdTe, 537
Mercury, 481
MESFET, 603
Metal
  acetylacetonates, 79
  (Al,Cr,Co,Cu,Mg,Ni,Pd,Pt, Rh,Zn) acetylacetonates, 553
  (Al,Cr,Co,Cu,Mg,Ni,Pd,Pt,Ti,Zn) hexafluoroacetylacetonates, 553
  hexafluoroacetylacetonates, 79
  -Si reaction, 7
Metastable defects, 199
Microchannels, 611
Microelectronics packaging, 217, 251, 313, 319
Microstructure, 671
Microwave plasma, 711
MIM Capacitors, 167
Mismatch, 505
MOCVD, 15, 369, 411, 453, 567, 593
  of metals, 79
Moisture absorption, 339
Mold package, 633
Molecular beam epitaxy, 111, 137, 585
Morphology, 25
MOVPE, 25, 475
Multi-chip packaging, 221, 267, 301
Multiple peaks, 763

Native oxide on Si, 589
Nickel contamination, 599
NH_3, 45
Nitridation, 99
Nitrided oxides, 767
N_2/H_2 reducing gas, 627
Nondestructive testing, 361

Non-solderability, 117
NTD Si, 1

OMVPE, 355, 501, 603, 645, 695
  growth mechanisms, 45
  (MOCVD), 457
Optical
  absorption, 391
  communications, 259
  interconnections, 259
  interferometry, 275
Organometallic compounds, 553
Oxide contamination, 627
Oxides, 731
Oxygen ion implantation, 39

p-type, 549
P incorporation, 91
Package cracking failure, 633
Packaging materials, 221, 229, 241
Passivation, 659
PDIP 40L, 117
Phonon spectra, 453
Photocurrent
  quenching, 209
  spectroscopy, 15
Photodiode, 775
Photoluminescence, 25, 123, 681
Piezoreflectance, 379
Point defects, 143
Polyimidesiloxanes, 313
Positrons, 737
Preamorphization of Si, 721
Printed circuit boards, 287
Process damage, 745
Progress in packaged electronics, 217
PTH technology, 275
Pyrolysis, 457

Quantum-well
  laser, 695
  structures, 465

Radiation damage, 745
Raman spectroscopy, 157
Rapid thermal annealing (RTA), 1, 65, 131
Reflectance spectroscopy, 361
Refractory metal, 623
Regrowth, 137, 717
Reliability, 339
Remote-plasma MOCVD, 91
Reproducibility, 695
Resin bleed, 117
Resistivity, 1
Resonant tunneling, 585
RIE, 619
  etching of vias, 293
RTA, 493, 721
RTCVD, 731
RuO_2 based TFR, 651

Saturation current, 487
Schottky
  barrier, 33, 527, 623
  contacts, 445
SD-48L packages, 599
Segregation, 689
Selective
  deposition, 711
  etching, 619
  growth, 111
Semi-insulating
  InP, 717
  layer, 39
Semiconductor, 69
Separation, 763
Shallow junctions, 143
Shear strain, 671
Sheet resistance, 157, 511
Silicide, 757
Si, 173, 199, 517, 543, 737
Silicon, 85, 681
  -on-sapphire, 53
  oxidation, 589
  oxynitrides, 767
SiC, 221
SiO_2, 99
Silver neodecanoate, 79, 553
SIMOX, 385
SIMS, 123
Sinter, 689
60Sn-40Pb solder, 671
SMD (surface mount device), 633
Solar cells, 7
SOS/SOI, 53
Sputter deposition, 517
Stamped copper frames, 117
Stoichiometry, 185
Strain, 505
Strained layer superlattice, 475
Stress analysis, 275
Superconductor, 757
  interconnections, 251
Surface, 123
  morphology, 399
  passivation, 531

Ta_2O_5, 7
TAB (tape automated bonding), 633
TEM, 69, 157, 185
Tensile strain, 671
Tertiarybutylphosphine, 15, 355, 457
Thermal
  fatigue, 671
  resistance, 611
  stress, 19, 531
  stability of, 553
Thick film resistors, 651
Thin film, 53
  interconnections, 267
  packaging, 301
  transistors, 53
III-V compounds, 361
  semiconductor etching, 619
Thin films, 517
SnTe, 421
TiN_xO_y, 493
$TiSi_2$, 493
TMGa, 45, 369
Transportable contaminants, 593
Tungsten hexacarbonyl, 79, 553
24-L cerquad packages, 627
Two-step rapid thermal diffusion, 573

UHV, 757
Ultrasonic bondability, 599
Uniformity, 695

V_3Si, 757
V-doped, 391
Velocity-field characteristics, 579
Via formation in polyimide, 293
VPE, 105

Wafer scale hybrid packing, 301
Wavelength control, 695
Wet oxidation of silicon, 561
Woven-glass reinforcement, 287
WSHP, 301
WSI, 301

X-ray
  absorption spectra, 207
  diffraction, 69
  induced insulator damage, 745

ZnO, 737
ZnSe, 105
ZrB_x ($0 \leq x \leq 2$) thin films, 511